STATE BUDGET AGENCY

SENIOR CLIENT/SERVER/INTERNET SYSTEMS ANALYST/DEVELOPER

(1BC2/Application Systems Analyst/Programmer - Senior)

JOB DESCRIPTION

I.   Position Description

Under general direction, this position works at a high technical level during all phases of computer application development. The incumbent carries out a wide variety of advanced technical computer systems duties, and is involved in the development and/or adaptation of accounting, budgeting, administrative, and statistical data to computer systems. Incumbent's assigned area of responsibility is a significant portion of the information technology support effort. The incumbent reports to the Agency's MIS Director, and may give some direction to lower classifications.

The incumbent performs the following major functions:

- Develops and maintains Agency application systems.

- Responds to system usage questions and problem reports.

- Instructs personnel in other State agencies in the use of Agency systems, and responds to questions and problem reports.

- Manages the content, utilization, and integrity of the Agency's data resources.

The incumbent must possess a wide range of technical and analytical skills, special abilities for communication and problem solving, extensive knowledge of application system development tools and methodologies, and a thorough knowledge of information resources and State government budgeting and accounting practices. This person must combine these skills and knowledge in order to effectively perform a wide range of system analyses.

II.   Duties and Responsibilities

- Assist in the development of Agency policies, standards, guidelines, and procedures related to the procurement and use of information technology resources.

- Perform cost/benefit justifications, and feasibility studies for new project requests.

- Prepare estimates of resource requirements for system implementations.

- Interact with executives, management, and users from both inside and outside of the Agency to define information technology needs and priorities; identify, design, develop, and implement appropriate solutions, and review results.

- Assist in the design, development, and implementation of Agency databases.

- Manage the utilization, content, and integrity of Agency information systems.

- Analyze user requirements, design, develop and implement applications and information systems.

- Devise or modify procedures to solve complex problems considering computer equipment capacity and limitations, operating time, network load, and form of desired results to obtain maximum computer utilization.

- Modify, maintain and convert existing programs and systems.

- Coordinate and/or provide systems orientation and application training for end-users.

- Help develop standards and controls for all systems documentation and programming procedures; train staff in the use of these standards.

- Maintain an understanding of Agency objectives, and a current working knowledge of Agency programs and major activities.

- Maintain an understanding of State government objectives and administration goals, and a current working knowledge of major state-wide programs and activities, and inter-agency interactions.

- Remain current with on-going and up-coming changes in the information technology industry through reading and attending and participating in appropriate training sessions and seminars.

- Maintain technical proficiency in a variety of data analysis tools in order to provide expert support for highly complex business analyses.

- Provide technical consulting to the Agency's professional staff.

- Assist in the development of State financial reporting systems.

- Assist in the production of Agency financial reports.

- Represent the Agency on cross-agency information technology projects and committees.

- May function as Team or Project Leader on complex projects.

III.   Job Requirements

Three years of full-time, paid, professional experience in information systems including:

- Two years of system analysis experience,

- Two years experience with Internet technologies,

- Two years experience with Windows operating systems and utilities,

- Two years experience using PowerBuilder or similar development tools to develop Client/Server applications which access Oracle database servers,

- One year experience using Java and/or JSCRIPT

- Bachelor's Degree in Computer Science or related area,

- Extensive knowledge of information systems design principles and development techniques,

- Extensive knowledge of information technology equipment, operation, and capabilities,

- Highly-developed interpersonal and organizational skills,

- Highly-developed analytical and problem-solving skills,

- Excellent oral and written communication skills, and

- High-level of self-motivation and professionalism.

IV.   Difficulty of Work

Work assignments involve the development of highly complex application systems. Projects involve a wide variety of technologies, and a number of people with a range of technical and personal skills. This position requires an in-depth understanding of the capabilities and limitations of many different information technology components, as well as how to get these various components to work together. Applications being developed involve multiple computers, operating systems, network protocols, database management systems, and development tools. Day-to-day system problems faced are of a non-routine nature and require mature, in-depth, but very speedy, analysis and resolution. Reference manuals used are of an extremely complex nature.

Incumbent applies general Agency guidelines in developing Client/Server and Internet applications for a variety of program areas using judgment in selecting those technologies, techniques and procedures most appropriate. Incumbent must identify all potential problems and study all significant variables in developing new systems using an in-depth knowledge of program areas and needs. This requires a complete analysis of a department including the interrelationship of functions, anticipated changes, the purpose of the required information and the necessary timing to meet established deadlines.

V.   Responsibility

Incumbent works as a technical specialist and receives general direction from the Agency's M.I.S. Director. Work has a direct influence on management decisions and has a major impact on the Agency's budget in terms of cost of implementing a system and potential savings. Work is reviewed for compliance with policy, conclusions, and final results. Incumbent responds to system failures, diagnoses problems, and implements solutions.

VI.   Personal Work Relationships

Works with the Agency's M.I.S. Director to plan and prioritize activities. Works with other Agency personnel to define and analyze requirements for new systems. Works with other MIS division personnel and contracted consultants to develop and maintain application systems. Works with professionals from other State agencies to address common areas of interest, or to develop specific inter-agency data interfaces. Works with departmental staff to receive information required to develop the most efficient hardware and software configurations. May work with personnel from other State agencies to determine and/or assist with the installation of software, or to resolve network issues. Incumbent is involved in cooperative problem solving, and interprets problems to achieve improvements and/or corrections in highly sensitive or disputed areas.

VII.   Other

This position requires familiarity with the following technologies:

- Microsoft Windows operating systems (and related components)
- TCP/IP (and related Internet protocols and utilities including HTML, HTTP, FTP, TELNET, SMTP)
- Microsoft Internet Information Server
- PowerBuilder Client/Server Development Tool Set
- Java and JSCRIPT programming languages
- Oracle Server Relational Database Management System
- Oracle Database Administration Utilities

- SQL, PL/SQL (stored procedures), SQL*Plus, SQL*Net
- Other ODBC Database Management Systems
- Microsoft Office Professional (Word, Excel, PowerPoint, Access, Outlook)
- Microsoft Project
- Other technologies as identified